

AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0001] of the specification with the following rewritten paragraph:

Technical Field

[0001] This invention relates to a cooling air supply system for an aircraft which supplies cooling air from the aircraft surroundings of an aircraft to at least two devices requiring cooling air within the aircraft.

Please replace paragraph [0002] of the specification with the following rewritten paragraph:

Background

[0002] In the field of aircraft construction, it is necessary to provide different functional units within the aircraft with cooling air. In the past, in order to meet the different requirements of the devices requiring cooling air within the aircraft, separate cooling air supply systems were provided adapted to each individual device requiring cooling air respectively. In this way, the individual devices requiring cooling air were supplied with sufficient quantities of cooling air, however this led to sophisticated cooling air supply systems, which all together significantly added to the weight of the aircraft, as well as associated high manufacture and maintenance costs. Moreover, several air inlets and air outlets had to be provided in the outer skin of the aircraft which weakened the aircraft structure and which led to relatively high additional air resistance (drag) of the aircraft. Finally, as a result of the different cooling air supply systems, a considerable amount of structural space within the aircraft interior was taken up.

Please replace paragraph [0004] of the specification with the following rewritten paragraph:

Summary of the Invention

[0004] This object is solved by a cooling air supply system for an aircraft which supplies cooling air from the aircraft surroundings of the aircraft to at least two devices within the aircraft requiring cooling air, whereby the cooling air supply system has an air inlet, an air channel communicating with the air inlet and an air distribution device for the distribution of air to at least two devices requiring cooling air. With the cooling air supply system in accordance with the invention, an air inlet is also supplied which is designed in such a way that it covers the maximum cooling air requirement of the at least two devices requiring cooling air.

Please replace paragraph [0010] of the specification with the following rewritten paragraph:

[0010] In accordance with the invention, it can also be arranged for a cooling air collection chamber to be connected to the diffuser, preferably downstream of ~~following to~~ the parallel arrangement point of the first and second bypass lines. Moreover, at least one cooling air supply line can be positioned between the cooling air collection chamber and each of the devices requiring cooling air. In order to be able to carry out distribution of cooling air which corresponds to the devices requiring cooling air, a further development of the invention proposes that the cooling air supply line is provided with a throttle device, preferably with a shutter. The throttle device can be variably adjustable. Alternatively, it is also possible to adapt the throttle device, especially the shutter, to the different devices requiring cooling air at the time of installation.

Please replace paragraph [0014] of the specification with the following rewritten paragraph:

Brief Description of the Drawing

[0014] In the following, an example of this invention is described with reference to the attached figure in which a cooling air supply system 10 in accordance with the invention is schematically represented.

Please replace paragraph [0015] of the specification with the following rewritten paragraph:

Detailed Description

[0015] The cooling air supply system 10 in accordance with the invention includes an NACA air inlet 12 which is positioned in the outer skin of the aircraft 14. The NACA air inlet 12 leads to a diffuser 16, at the end of which is is ~~are~~ a line section 18 and a bypass channel 20 in the style of a parallel arrangement. In the line section 18 a check valve 22 is positioned, and this permits flow in the direction of the arrow 24, but blocks flow in the opposite direction. A turbo compressor 26 is provided in the bypass channel 20 which, when powered, also causes air to flow in the direction of the arrow 24.

Please replace paragraph [0016] of the specification with the following rewritten paragraph:

[0016] A cooling air collection chamber 28 joins onto the line section 18. Several cooling air supply lines 30, 32 and 34 lead off of this collection chamber 28 in parallel.

Please replace paragraph [0017] of the specification with the following rewritten paragraph:

[0017] During flight operations when the aircraft is at cruising altitude, ambient air at a temperature of approx. -50° C. flows into the NACA air inlet 12 in accordance with the arrows 62 [[P]]. The ambient air enters the diffuser 16 via the NACA air inlet 12 and flows through the check valve 22 into the collection chamber 28.

Please replace paragraph [0019] of the specification with the following rewritten paragraph:

[0019] The cooling air supply line 30 has a firmly installed shutter 36 (i.e., throttling device) close to its interface with the collection chamber 28, and this limits its flow cross-section. It leads to a supply system 38 by means of which the ventilation device of an unpressurized air-conditioned space (unpressurized bay ventilation; UBV) is supplied with cooling air in accordance with arrows 40 and 42.

Please replace paragraph [0020] of the specification with the following rewritten paragraph:

[0020] The cooling air supply line 32 also has a firmly installed shutter 39 which limits its flow cross-section. It takes cooling air from the collection chamber 28 to a heat exchanger 44 which is assigned to an on board oxygen generation system (OBOGS). By means of the heat exchanger 44, a heated fluid conveyed in a line 46 of the on board oxygen generation system can expel heat into the cooling air. The heated cooling air is then led away from the heat exchanger 44 via an expelled air pipe 48, and taken into an air outlet pipe 50. The air output pipe 50 ends at

an air outlet 52 which is also provided in the outer skin of the aircraft 14 and which opens into the aircraft surroundings of the aircraft.